

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

APPLICATION BRANCH

CARLO VERBURG ET AL

Serial No.: To be Assigned

Filed: Herewith

For: A METHOD OF COOLING ANIMALS

PRELIMINARY AMENDMENT

To the Honorable Commissioner
of Patents and Trademarks
Washington, D.C. 20231

Sir:

This Preliminary Amendment is for the above-identified Application which is being filed under 35 U.S.C. §111(a) as a continuation of co-pending International Application No. PCT/NL00/00504, filed July 18, 2000, International Publication No. WO 01/10197, published February 15, 2001. Priority based thereon of July 18, 2000 is claimed and is further claimed for August 18, 1999 based on Dutch Patent Application No. 1012809.

IN THE SPECIFICATION:

A Substitute Specification is submitted herewith. It is requested that the Substitute Specification be substituted for the copy of the Specification of International Application No. PCT/NL00/00504, also submitted herewith as the original Specification for the instant Application. No new matter has been added to the Substitute Specification. However, the Substitute Specification is amended by the insertion of:

--RELATED APPLICATION:

This Application is a continuation of International Application No. PCT/NL00/00504, filed July 18, 2000.--

which is, it is submitted, an appropriate amendment. A marked-up copy of the original Specification of the invention is also submitted herewith for comparison purposes.

IN THE CLAIMS:

On page 6, immediately following the heading "CLAIMS", please insert: --Having thus disclosed our invention, what we claim as new and to be secured by Letters Patent of the United States of America is:--.

Please cancel all Claims except Claim 1 without prejudice.

Please add the following claims:

Claim38. A method of cooling an animal comprising the steps of applying a liquid between the hairs of the animal and blowing air over said liquid..

Claim 39. A method in accordance with Claim 38, wherein said liquid is atomized to consist of a fine spray.

Claim 40. A method in accordance with Claim 38, comprising rubbing said liquid between the hairs of said animal.

Claim 41. A method in accordance with Claim 40, comprising brushing said liquid between the hairs of the animal by rubbing.

Claim 42. A method in accordance with Claim 38, comprising predetermining a fixed maximum amount of said liquid to be applied to the animal.

Claim 43. A method in accordance with Claim 38, comprising the further step of monitoring said liquid which has been applied to the animal for the formation of droplets on the animal.

Claim 44. A method in accordance with Claim 43, comprising the step of discontinuing the application of liquid to the animal when droplets of said liquid are formed.

Claim 45. A method in accordance with Claim 38, wherein said blowing step is directed to the back of the animal.

Claim 46. A method in accordance with Claim 38, wherein certain parts of the animal are shielded from receiving said liquid.

Claim 47. A method of protecting certain parts of an animal while cooling the animal with a water spray comprising shielding said parts against receiving said water spray.

Claim 48. A method in accordance with Claim 47, comprising shielding the udder and teats of the animal.

Claim 49. A method in accordance with Claim 47, comprising shielding the animal's head parts.

Claim 50. A method in accordance with Claim 38, comprising the further step of determining the temperature of the animal when it is receiving liquid while air is being blown over said liquid.

Claim 51. A method in accordance with Claim 50, which comprises discontinuing the application of said liquid and the blowing of said air when said temperature reaches a predetermined temperature.

Claim 52. A method in accordance with Claim 38, comprising the further steps of observing the animal's behavior during the method and discontinuing the application of liquid

and the blowing of air on the animal when the animal's behavior changes to indicate that the method is adversely affecting the animal.

Claim 53. A method in accordance with Claim 52, comprising deducing that the animal is being adversely affected by the method from variations of the number of movements of the animal per unit of time.

Claim 54. A method in accordance with Claim 38, which comprises milking the animal while liquid is being applied to the animal and air is being blown over said liquid.

Claim 55. A method in accordance with Claim 38, comprising ascertaining whether the animal is undergoing thermal stress as the method progresses.

Claim 56. A method in accordance with Claim 55, comprising ascertaining whether the animal is undergoing thermal stress by infrared imaging.

Claim 57. A method in accordance with Claim 56, which comprises controlling the intensity of cooling based on the ongoing status of the animal as depicted by said infrared imaging.

Claim 58. A method in accordance with Claim 55, comprising monitoring the animal's ears to determine whether the animal is undergoing thermal stress.

Claim 59. A method in accordance with Claim 55, comprising monitoring the wetness of the animal's coat to determine whether the animal is undergoing thermal stress.

Claim 60. A method in accordance with Claim 55, comprising monitoring the activity of the animal to determine whether the animal is undergoing thermal stress as the method progresses.

Claim 61. A method in accordance with Claim 55, comprising monitoring the animal's eyes to determine whether the animal is undergoing thermal stress as the method progresses.

Claim 62. A method in accordance with Claim 55, which comprises monitoring the animal's breathing to determine whether the animal is suffering from thermal stress as the method progresses.

Claim 63. A method in accordance with Claim 55, comprising monitoring the tension of the animal's back muscles to determine whether the animal is undergoing thermal stress as the method progresses.

Claim 64. A method in accordance with Claim 55, comprising monitoring the animal's tongue position relative to its mouth to determine whether the animal is suffering from thermal stress as the method progresses.

Claim 65. A device for cooling animals comprising a wetting means that reduces a liquid to a fine spray for application to at least part of an animal between the animal's hair and air flow producing means for producing an air flow directed over the wetted part of the animal.

Claim 66. A device in accordance with Claim 65, wherein said wetting means comprises a liquid atomization device.

Claim 67. A device in accordance with Claim 65, wherein said wetting means comprises a brushing device.

Claim 68. A device in accordance with Claim 65, wherein said air flow producing means comprises air displacing means, and comprising air flow controlling means for controlling the velocity of the air which is displaced by said air displacing means.

Claim 69. A device in accordance with Claim 65, wherein said device is combined with a milking compartment.

Claim 70. A device in accordance with Claim 69, comprising a milking robot in said milking compartment.

Claim 71. A device in accordance with Claim 65, comprising means for determining whether the animal is undergoing thermal stress.

Claim 72. A device in accordance with Claim 71, wherein said means for determining thermal stress comprises a camera.

Claim 73. A device in accordance with Claim 71, wherein said means for determining whether the animal is undergoing thermal stress comprises a hydrometer.

Claim 74. A device in accordance with Claim 71, wherein said means for determining whether the animal is undergoing thermal stress comprises an odor monitor.

IN THE ABSTRACT:

In lieu of the Abstract which appears under the title and drawing of the invention on the cover page of the Application submitted herewith, please substitute the Abstract of the Disclosure appended hereto.

REMARKS

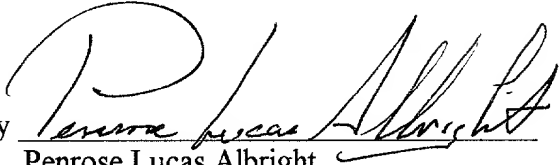
The purpose of this Preliminary Amendment is: (1) To provide a Substitute Specification and an Abstract which are in formats customary for U.S. patent applications and which are also expressed in less stilted and more readable idiomatic English; (2) To amend the claims of this Application to eliminate multiple-dependent claims therefrom; (3) To establish a filing fee; and (4) To amend the claims so that they are more nearly in formats customary for U.S. patent applications. It is to be understood, nevertheless, the claims originally set forth remain part of the original disclosure of the Application.

As amended, the Application has thirty-eight (38) claims, four (4) of which claims are independent claims. Accordingly, a filing fee of \$557.00 appears to be required and our check to

cover same is submitted herewith. If this is in error, the Commissioner of Patents and Trademarks is authorized to debit or credit our Account No. 13-2000 as appropriate.

Respectfully submitted,

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